Summary of Project Descriptions for Final Applications Submitted for 2008 SRFB Grant Round

A. Snow/Salmon Railroad Grade Removal Design

The North Olympic Salmon Coalition is proposing the next phase in efforts to rehabilitate the Snow and Salmon Creek estuary in Lower Discovery Bay. Large, historic salt marsh areas are being restored in summer 2008 by NOSC and its partners to improve critical rearing habitat for several species of salmonids, including the ESA-listed summer chum salmon. The WRIA 17 Salmon Habitat Limiting Factors Analysis and the Summer Chum Salmon Recovery Plan both identify the next largest, addressable, anthropogenic impact to physical habitat in the estuary as the abandoned railroad causeway which bisects the entire estuary. All lands proposed for work in this project are currently owned by WDFW.

This design-only project proposes to conduct a feasibility study to understand options for removing the railroad grade between Snow and Salmon Creeks to restore tidal inundation to the high salt marsh and tidal channels. We also propose to study options for enhancing the railroad grade along the western edge of the estuary where we believe the armored shoreline can be partially pulled back, softened, and revegetated to further improve rearing habitats for salmonids and other fauna.

This project will be completed within 18 months of the date of agreement and will result in plans ready to be permitted and implemented as funding allows.

B. Dabob Shoreline Acquisition and Restoration

Northwest Watershed Institute and Jefferson Land Trust propose to restore and permanently protect one-quarter mile of high quality forested shoreline and 22 acres of forested slopes and feeder bluffs along Dabob Bay. This property represents one of the longest intact shorelines parcels in the area and is located less than 1/2 mile south of Camp Discovery Creek estuary and adjacent to the proposed DNR Upper Dabob Bay Natural Area. The entire property, with the exception of a one acre existing house site, will be protected under a highly restrictive conservation easement to protect beach, riparian forests, feeder bluffs, stream ravines and slopes. NWI and partners will remove a 330 foot long creosote bulkhead that impacts shoreline processes and habitats. Landowners will need to split the property and sell 10 acres for shoreline residential development if this conservation proposal is not funded. Dabob Bay is one of the least developed, large bays with high quality salt marshes remaining in Puget Sound. The nearshore is documented nursery habitat for summer chum and Chinook, both federally listed as Threatened. Dabob Bay also has some of the highest densities of forage fish spawning sites in Eastern Jefferson County. This project is part of a comprehensive effort to protect and restore this area that is being undertaken by a coalition of over 20 organizations including Tribes, State agencies, Jefferson Land Trust, The Nature Conservancy, NWI, shellfish industry and landowners.

C. Little Quilcene River Delta Cone Removal

Need: We have the opportunity to remove the effects of over 100 years of land mismanagement resulting in a significant delta cone in the estuary that impedes natural tidal action which cleanses the estuary and ensures fish passage.
Goals: The goal of the project is to restore the historic natural estuarine function.
Scope: Remove 25,000 CY of aggraded heavy sand and gravel; construct 960 ft. of new river channel; remove 1,120 ft of existing Sea Dike.

Expected Outcomes: Allow tidal and wave action fuller access to the entire northern portion or the larger Quilcene estuary. Summer chum, Steelhead and Chinook, spawn in the Little Quilcene River and utilize the entire Quilcene Bay estuary complex during their juvenile rearing stage.
Community Involvement: The town of Quilcene has been extremely active in restoration efforts in the past. Coastal Oyster is the largest employer in the region and strongly supports the effort. Adjacent property owners have been working closely with the Jefferson County Conservation District, HCSEG and the Lead Entity for several years supporting this and other area salmon recovery efforts.
Previous or Anticipated Phases: To date over $3 million has been invested in the Quilcene Bay. Approx. $5 million will be invested this year with the overall strategic plan estimating a $12 million upon completion in the coming years.
Evidence of Recovery Plan or Lead Entity Strategy: 3 year watershed implementation Priorities for HCCC= Domain 1 project.

D. Big Quilcene River ELJ Restoration Phase 2

The Skokomish Tribe proposes to construct a second phase of engineered log jams (ELJ) as identified in the 2002 SRFB funded Reach Analysis/Feasibility Study. Phase 1 will be constructed in 2008. The main goal of phase 2 is to restore floodplain connectivity and channel diversity in the Big Quilcene River by installing 2 log weirs and 6 ELJs, and by at least partially removing two downstream levees.

The Quilcene River contains ESA listed Hood Canal Summer run chum and steelhead, as well as fall chum, coho, pinks, and coastal cutthroat. Restoration work is required to reverse the adverse effects of past clearing, logging, diking, dredging, and bank armoring that have occurred in this reach over the last 50 years. These activities have resulted in a straightened river corridor, which has induced channel incision. These activities have also resulted in a loss of river connectivity with the floodplain, reduction in habitat complexity because of the elimination of pools, and a reduction in access to floodplain vegetation and wood recruitment. The intent behind the proposed restoration is to reverse these trends through a series of constructed grade controls and ELJs that will recruit sediment and aggrade the channel, diffuse energy, increase pool frequency and promote channel and floodplain complexity and sinuosity. This proposal will also implement findings from our on-going Levee Removal Feasibility Study, which will most likely include either levee dispersal or setback. Final design and permitting are still required.

E. Skokomish River General Investigation

This project is a continuation of the 2007 award for the Skokomish River GI phase 2 and 3 to complete the assessment and feasibility process. The purpose of the feasibility phase of project development is to investigate formulating a solution to address ecosystem restoration and flood damage reduction. The Tribe, Mason CD, and Army Corp identified a shortfall for matching contribution for FY 2009. The MCD submitted for FCAAP funds for the Skokomish River GI for 2008 and 2009 but only received $130,000 to cover 2008 creating a shortfall for 2009. In addition to this shortfall the federal appropriation is expected to be much higher than anticipated. The House bill requested $766,000 when we expected only $500,000. Our House Representative's office informed us that we would most likely not receive the full 766k but we should be prepared to receive an amount greater than $500,000. The federal funding process is incomplete and uncertain at this point and we will keep SRFB updated as the budget becomes finalized.

The original GI SRFB grant award for 2008 and 2009 was $701,150 of which $295,000 from the award and $105,000 feds match was utilized in 2008. The remaining $301,150 is in-hand for 2009. The Army Corps federal contribution is expected to be approximately $601,150 for FY 2009 and

$301,150 remains from the 2007 SRFB award. The Tribe and MCD need to fulfill the 50/50 match so we are requesting $300,000 plus the $301,150 (in-hand) for a total $601,150.

F. Gibbons Creek Fish Passage Restoration

Gibbons Creek is a tributary to McTaggert Creek, in the North Fork Skokomish watershed. Near the project site, the bankfull width ranges from 20' to 30'. A railroad grade crossing was established on Gibbons Creek prior to 1946, with a 35' deep fill. The current culvert, a 60" diameter corrugated metal pipe, now has an outfall drop of 10', which prevents any upstream fish migration. Skokomish Watershed Restoration Plan and the WRIA 16 Limiting Factors Analysis has identified the Gibbons Creek restoration project as a high priority. Project also included in the Skokomish Watershed Action Team's 3-Year Plan. Gibbons Creek is completely blocked to anadromous fish passage. The project will replace a culvert on Green Diamond Resource Co's 8000 Road at Gibbons Creek. A bridge will be installed and the stream will be rehabilitated using stream-simulation methods to restore fish passage to upstream spawning and rearing habitat. Approximately 6,000' of habitat will be opened upstream of the culvert to anadromous fish species for spawning and rearing. A substantial fish passage barrier will be eliminated in the North Fork Skokomish watershed, where anadromous fish habitat is a limited. The stream reach immediately adjacent to the project site will be rehabilitated by use of LWD and large rocks with a stream-simulation design approach. Removing the culvert and road fill, the risk of a catastrophic failure, with a potential to deliver approximately 10,000 cubic yards of material into the stream network, will be eliminated.

G. Tahuya River Habitat Restoration

Need During the historic high water event in December 2007 the Little Tahuya stream bed was scoured, removing LWD and dumping thousands of tons of silt laden material over spawning gravels utilized by Summer Chum and Steelhead.

Goals This project has one overarching goal to focus quality benefits to species at risk through the restoration of in stream habitat by placing engineered log jams in the denuded stream bed.

Scope Restore the natural river channel and strategically place LWD.

Outcomes Critical bank cohesion provided by deep-rooted woody vegetation is absent and added LWD can provide hard points needed to scour pools as well as helping to maintain channel form and position. The addition of LWD will create and then help maintain habitat. Particularly in this reach as it lacks boulder or bedrock obstructions and deep rooted woody bank vegetation. And, in order to protect a high value road, the county has armored one bank at the site thus preventing natural channel morphology and LWD collection.

Community Involvement The Tahuya River and Little Tahuya River are composed of predominantly private ownerships that are adjacent to WDFW owned property. The WDFW has maintained a long standing presence in the area through extensive salmon monitoring on the Tahuya and Little Tahuya River systems. This effort will tend to improve strained community relations in the Tahuya Valley.

Anticipated Phases There are no follow on actions other than monitoring effectiveness.

H. Knotweed Control and Riparian Enhancement

Need: Compared to native plant species, knotweed shows a decreased ability to control erosion despite having an extensive root system. During flood events, plant fragments are washed downstream where rhizome and stem pieces create new infestations. Increased sediment is a factor in the loss of productive salmonid habitat. Sediment can fill in the spaces between riverbed spawning gravels and fill in pools used for rearing. It negatively affects salmonids by smothering viable eggs, decreasing their feeding success, and damaging gill filaments. Knotweed negatively affects aquatic invertebrates that compose the basis of the aquatic food chain by an alteration of the quality and timing of the leaf litter regime. This alteration changes nutrient inputs and soil composition. Invertebrates are the primary food source of juvenile fish species.
Goals: The goal is to identify all infestations and treat on a worksite by worksite (subbasin) determined by funding availability.
Scope: Limiting factors of salmonid production include elevated stream temperature, increased silt loads, poor riparian conditions, poor floodplain conditions, and a lack of large woody debris.
Outcomes: Location, Control, Monitoring of Knotweed infestation, and restoration of riparian corridors.
Community: Huge positive potential witnessed by the demand for education and number of volunteers.
Phases: Little previous work in the proposed worksites. Best science demands a **three year control cycle, as submitted**.

I. Hood Canal Marine Debris Removal Phase IV

Need - The Hood Canal is littered with derelict marine debris of which most is "ghost fishing" causing irreparable harm to anadromous fish, crabs, and mammals.
Goals - Locate, identify and remove the estimated 900 derelict shrimp and crab pots, and nets from the Hood Canal.
Scope - Map and record underwater topography across the entire Hood Canal below the Hood Canal Bridge. Remove located and prioritized debris with divers and remotely operated devices.
Expected Outcomes - The location, identification and removal of hazardous marine debris from the Hood Canal.
Community Involvement - Educate fishermen on dangers of derelict marine debris. Provide a toll free number to report lost gear. Return lost gear to identified owners. Boaters, marina owners; and dive club members have expressed a desire to participate in the project.
Previous Or Anticipated Phases: The first previous phase was a survey of the Hood Canal for "Ghost Nets". The second phase was the removal of nets and derelict gear. The third phase was the development of underwater realtime cameras and the purchase and development of a towed sonar array. This phase will survey, locate, identify and remove hazardous marine debris.

This is a Domain 1 issue with the Lead Entity (HCCC).

J. West Kitsap Hood Canal Nearshore Assessment

The marine nearshore of Kitsap County plays a critical role in the recovery of salmon populations in Puget Sound and Hood Canal. The nearshore functions were quantified for the 155 miles of the West Kitsap Shoreline in the field survey conducted in 2007. The data collected is consolidated into an assessment framework that is based on a conceptual model that integrates the best available science for nearshore ecosystems. Kitsap County proposes to complete this nearshore habitat assessment and use the similar assessment methodology for the west Kitsap Shoreline along Hood Canal.

The overall goal of the study is to provide information on the West Kitsap Hood Canal shoreline conditions so that habitats may be strategically approached with respect to habitat protection and prioritization. The modeling results serve to summarize the nearshore ecological functions and serve as an information tool to guide future habitat projects. The nearshore assessment also provides information that can be used in the updated development of the Shoreline Master Program.

The proposal for the Hood Canal Nearshore Assessment is to continue with the Kitsap County shoreline at Foulweather Bluff to the southern end of the assessment at the Mason/Kitsap county line, covering 66 miles of shoreline. Potential partners for the Hood Canal Assessment include the Suquamish Tribe, Port Gamble S'Klallm Tribe, Skokomish Tribal Nation and the Hood Canal Coordinating Council.